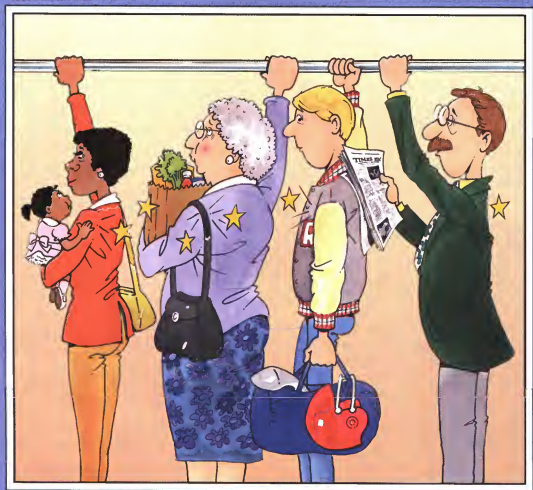


Shoulder Owner's Manual



**A Guide to the Treatment of
Common Shoulder Problems**

Your Shoulders: Freedom at a Price

Your shoulders have a range of motion that no other part of your body has. This flexibility allows your arms to do all the things that you need them to do. But it also makes your shoulders more likely to suffer injuries. This booklet will help you understand common shoulder problems. You'll also learn what can be done for your problem and how to prevent problems in the future.

How Shoulder Problems Happen

A shoulder problem can happen to anyone—young or old, out of shape or athletic. It can occur over time or suddenly, while doing day-to-day tasks or playing sports. Lifting something that's too heavy or hard to carry can strain the shoulders. Constant reaching or reaching too far can inflame your shoulder. A fall can dislocate your shoulder joint or even break a bone.

More Than Shoulder Pain

A shoulder problem can cause pain in your arm, hand, and neck as well as in your shoulder. This pain may make it hard to move the affected parts. Sometimes, though, shoulder pain can be caused by problems in other parts of your body. Problems in your arm, hand, neck, or even internal organs may cause a pain in your shoulder. This is called **referred pain**.

Don't Shoulder the Burden

If you have shoulder pain that won't go away, see your doctor right away. The longer you wait, the harder it becomes to move your shoulder. But you can regain the use of your shoulder with treatment. Your treatment may include self-care, physical therapy, and exercise.



This booklet is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

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Your Medical Evaluation

To diagnose your shoulder problem, your doctor will need to know how the problem started and what your symptoms are. You will be asked questions to help pinpoint the cause of your shoulder pain. You will also have a physical exam. Tests, such as x-rays, may be ordered. You and your doctor will then discuss your treatment plan.

Medical History

Your doctor may ask you about past shoulder injuries or surgeries. He or she will want to know if the pain came on over time or suddenly. You might be asked whether you have problems with your neck, heart, lungs, or gallbladder. These can cause referred shoulder pain. Also, be sure to tell your doctor if you are taking any medicines.

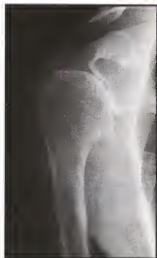
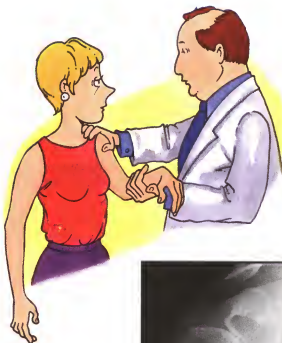
Physical Exam

Your shoulder, neck, and arm will be looked at and gently moved. Your doctor may check for pain, weakness, tenderness, loss of motion, or popping as you move your arm in all directions. You will be asked which positions and movements cause pain.

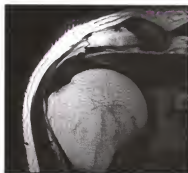
Diagnostic Tests

Tests can provide more information about your injury.

- **X-rays** show the bones of your shoulder. These may reveal arthritis, calcium deposits, dislocations, or fractures.
- **CT** (computed tomography) produces images that can show bone injuries.
- **Arthrograms** are special x-rays. Dye injected into the shoulder outlines soft tissues. This helps pinpoint problems such as tissue tears.
- **MRI** (magnetic resonance imaging) produces images that show inflammation, tears, and changes in bone and soft tissue.
- **Arthroscopy** is surgery that allows your doctor to view the inside of your shoulder directly. It can reveal damage that other tests may not.



X-ray of arthritic shoulder with bone spur



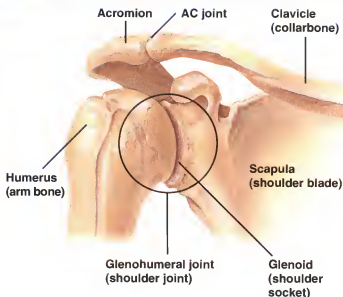
MRI of shoulder with tendinitis

Know Your Shoulder

Learning how your shoulder works can help you better understand what could go wrong with it. The shoulder is made up of the shoulder **joint** (where the bones meet), the AC joint, ligaments, muscles, tendons, and bursae. These work together to allow the flexibility and movement of your upper arm. If any of these structures are inflamed or damaged, shoulder movement can become painful.

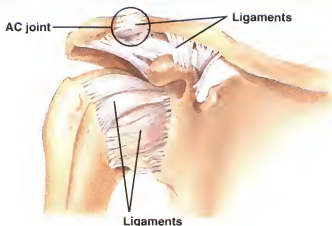
Bones of the Shoulder

The shoulder blade (**scapula**) is a large flat bone. The top of it (the **acromion**) is attached to the collarbone (**clavicle**). Below the acromion is a shallow socket called the **glenoid**. The shoulder joint (**glenohumeral joint**) is where the glenoid and the ball-like head of the arm bone (**humerus**) meet. This joint allows your arm to move in any direction. But it is unstable and easily injured. Another joint is formed by the acromion and the clavicle (**AC joint**). This joint maintains the position of the shoulder blade.



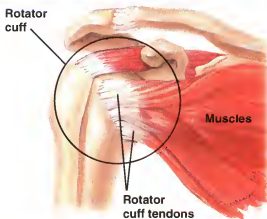
Shoulder Ligaments

Ligaments connect bone to bone. The shoulder ligaments secure the joints of the shoulder. They also provide stability and strength.



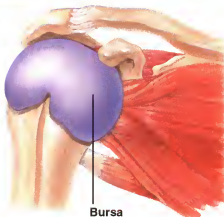
The Rotator Cuff Stabilizes Your Shoulder

The rotator cuff is made up of **muscles** and **tendons**. It helps hold the humerus in the shoulder socket, providing strength and stability. The rotator cuff also moves the arm, turning it inward and outward.



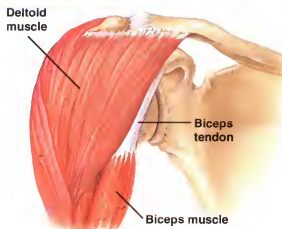
The Bursa Cushions the Bones

Between the acromion and the rotator cuff lies a **bursa**. It is a fluid-filled sac that cushions the muscles and bones next to the shoulder joint. It helps keep these bones from rubbing against each other.



Muscles Move Your Shoulder and Arm

Muscles help you move your shoulder and arm. The **deltoid** muscle gives your shoulder its round shape. It helps you raise your arm at the shoulder. The **biceps** muscle helps you bend your arm at the elbow. Muscles are attached to your arm and shoulder by tendons.

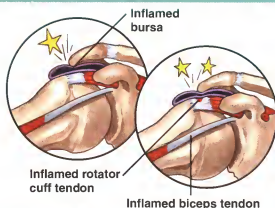


Shoulder Wear and Tear

Over time, your shoulder can be damaged by wear and tear. In fact, this is the most common cause of shoulder problems. Soft tissue can become inflamed or torn from overuse. Arthritis is also a result of wear and tear. With any of these problems, you may feel a dull ache or sharp pain when you move your arm. To relieve your pain and heal your shoulder, see your doctor to learn what the best treatment is for your condition.

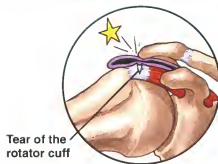
Bursitis and Tendinitis

Each time the arm is held out from the body, the rotator cuff and bursa in the shoulder joint are squeezed. Over time, this can inflame the bursa, the rotator cuff tendon, or the biceps tendon. Not warming up before activity can also lead to inflammation. An inflamed bursa is called **bursitis**. An inflamed tendon is called **tendinitis**. Either problem results in pain and limited shoulder movement.



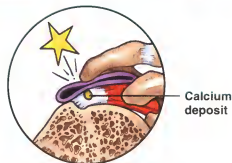
Rotator Cuff Tear

Wear on the rotator cuff can create weak areas that eventually tear. If this happens, you may feel, and even hear, a clicking or popping sound in your shoulder. This sound is caused by a piece of the torn rotator cuff sliding under the acromion. A tear can result in pain, weakness, and loss of normal movement.



Calcific Tendinitis and Calcific Bursitis

An inflamed rotator cuff can sometimes lead to a **calcium deposit**. If this deposit breaks through into the bursa, it can cause sudden and severe pain. This problem is called **calcific tendinitis** or **calcific bursitis**.



Arthritis

Years of use can wear out the protective surfaces covering the bones at a joint. The bones may then rub together and lead to **arthritis**. You may have inflammation and soreness, or pain with increased use. This occurs most often in the AC joint, but the shoulder joint is sometimes affected.



Treatment

Your treatment will depend on the type of shoulder problem you have. Treatments include:

- **Rest.** You will be told how best to rest your shoulder. In general, avoid any motion that causes pain. You may need to make changes in your daily routine. Sometimes a shoulder sling is prescribed.
- **Ice.** Ice packs help relieve a muscle spasm or "knot." Ice decreases inflammation and pain in muscles and joints. Wrap a bag of ice or frozen peas in a towel. Then place it on the painful site for 15 to 20 minutes at a time.
- **Heat.** Heat increases blood flow to the muscles and tendons. Combined with gentle movement, heat can also increase motion. Use heat before and during exercise only.
- **Medicine.** To reduce inflammation and pain, your doctor may prescribe medicines. These may include aspirin, ibuprofen, or other anti-inflammatories, or pain medicine.
- **Cortisone.** For inflammation, cortisone is either taken by pill or injected. Shots may cause discomfort for a day or so. But once cortisone takes effect, pain is reduced.
- **Exercise.** You may be given exercises depending on the nature of your problem.

If pain remains, more treatment, such as physical therapy or surgery, may be needed.



Apply a towel soaked in hot water to your shoulder. Swing your arm back and forth slowly.



Common Shoulder Injuries

The most common shoulder injuries include dislocation, sprain, separation, and broken bones (**fractures**). Fractures often happen at the same time as dislocations. Shoulder injuries may occur when the arm is jerked or when you fall on a shoulder or outstretched arm or elbow. Whatever the cause, treatment is needed right away to relieve pain and regain use of your shoulder.

Dislocation

When the arm is jerked backward or pulled sharply, the head of the humerus may come out of the shoulder socket. This is called a **dislocation**. It causes severe pain and prevents shoulder movement. Numbness, swelling, and bruising may also occur.

Diagnosis

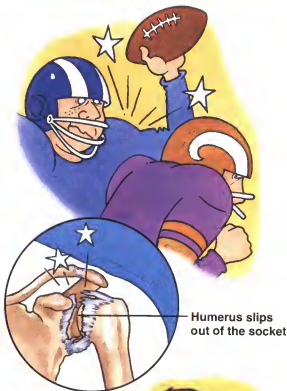
Your doctor can find out if you have a dislocated shoulder by examining the joint. X-rays may also be taken to see if there are other problems, such as a fracture.

Treatment

The humerus must be put back into the socket as soon as possible. You may be sedated for this procedure. To help your shoulder recover, you may wear a sling or shoulder immobilizer for a time.

Special Note

- Once you've dislocated your shoulder, the chances of doing it again are greater. For repeated dislocations, your doctor may suggest surgery to stabilize the joint.
- The humerus may only partly come out of the socket. This is called **subluxation**. See your doctor for treatment.



While you heal, you may wear a special support called a shoulder immobilizer.



Sprains and Separations

Shoulder sprains and separations are often caused by a fall on the shoulder. A **sprain** is when ligaments are torn. The ligaments around the AC joint are the most common spot for sprains in the shoulder. The sprain might be a small tear. Or it may be large enough for the acromion and clavicle to come apart (**separation**). This causes the clavicle to pop up. You'll see a bump under the skin. Even a mild sprain will cause pain when you move your shoulder.

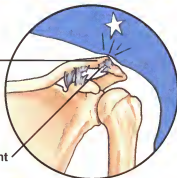


Diagnosis

Your doctor will examine your shoulder for tenderness or a bump over the AC joint. X-rays may be taken while you are holding a light weight to better view a separation.

Clavicle pops up

Torn ligament



Treatment

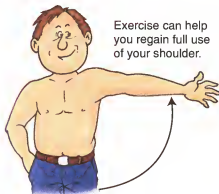
Your doctor may prescribe medicine to reduce the inflammation and pain. You may need to wear a sling to prevent movement. Some sprains and separations heal by themselves. But severe separations may need surgery. During surgery, pins, a screw, or some other device is inserted to hold the clavicle in place. A mild sprain takes about a month to heal. A severe sprain or separation can take 2 or more months to heal. When your shoulder is healed enough, exercises will be prescribed.



A sling may be worn to prevent movement during healing.

Special Note

- After a separation, you are likely to always have a harmless bump over the AC joint.
- If you've had a sprain or separation, wear heavy padding when playing contact sports.



Exercise can help you regain full use of your shoulder.

Common Shoulder Injuries

Clavicle Fracture

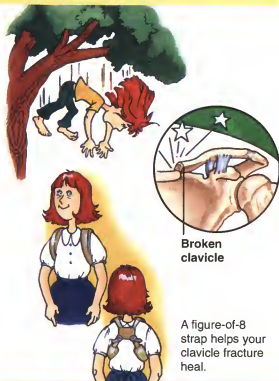
The clavicle (collarbone) is most often broken as a result of a heavy fall on the shoulder. This type of fracture is common in children. With a broken clavicle, there is severe pain and bruising.

Diagnosis and Treatment

Your doctor will examine your clavicle and have x-rays taken. Medicine may be given for pain. A **figure-of-8 strap** is worn to put the bone ends in the best position to heal. The strap is worn for about a month to keep the clavicle in place. After the strap is removed, exercises may be prescribed. Sometimes surgery is needed.

Special Note

A harmless bump will remain on your clavicle.



Broken Shoulder

A broken shoulder is usually a fracture of the neck of the humerus. It is most often caused by a fall on an outstretched arm or elbow. Pain can be moderate to severe. When the humerus breaks, internal bleeding occurs. This causes the arm to bruise as far down as the forearm.

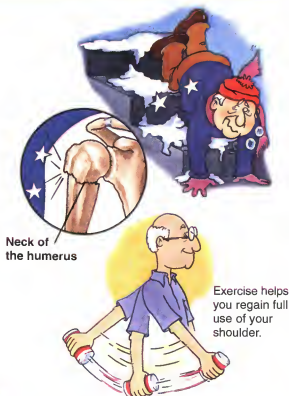
Diagnosis and Treatment

This fracture is diagnosed by x-rays. The shoulder is then put in a sling or another device to keep it from moving. Medicine may be prescribed for pain. Sometimes surgery is needed.

You will begin doing shoulder exercises soon after the injury. They may be uncomfortable. But they must be done to keep your shoulder's range of motion. A broken shoulder may take 3 months or longer to heal.

Special Note

After healing, your bone is as strong as before the injury, but it may not be as straight.

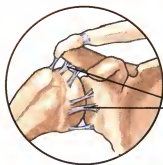


The Cycle of Disuse

Your shoulder is meant to move freely. But painful shoulder inflammation can keep you from using your shoulder. It can also cause sticky bands called **adhesions** to grow around the shoulder joint. These adhesions make shoulder movement even more painful. An unused shoulder can become stiff and sometimes “frozen.”

Frozen Shoulder

When you have shoulder pain, you may let other parts of your body do the work of your shoulder. This is called **substitution**. It can lead to “frozen shoulder” (inability to move your shoulder freely). Another name for this problem is **adhesive capsulitis**.



Adhesions

Diagnosis and Treatment

Your doctor will check to see how much shoulder motion you have lost. An exercise program may then be prescribed to increase your shoulder's range of motion. The exercises might be painful. But they will help free your shoulder joint of adhesions. Some exercises can be done at home. Others may be done with the help of a physical therapist.

The therapist may use other treatments to relieve pain and inflammation. One of these is **mobilization**. With this technique, the therapist moves your bones gently to free adhesions. If your shoulder is severely “frozen,” you may need to be treated in a hospital. There you will be given general anesthesia so you will be “asleep” while the doctor treats your shoulder.



Special Note

- You will need to maintain your shoulder mobility after treatment. Each day, move your shoulder through the most complete range of motion you can.
- An occupational therapist may help you return to your activities at home and work.
- Rarely, adhesions can come back.

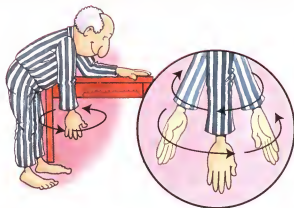


Home Exercises

Doing exercises is the only way to regain full use of your shoulder. Here are a few exercises that your doctor or physical therapist may suggest to help your recovery. Increase your activity a little bit at a time. **Don't do any of these exercises without the approval of your doctor or physical therapist.**

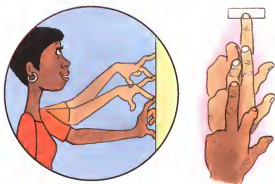
Pendulum Exercise

Place your good arm on the top of a table. Bend over at the waist. Let your injured arm hang straight down. Swing it back and forth like a pendulum. Then move it in circles that start small and slowly grow larger. Do this for at least 5 minutes, 3 times a day. You may be asked to do this exercise using a weight.



Wall Walking

Stand facing a wall with your feet about 12 inches away from it. "Walk" the fingers of your injured arm up the wall as high as is comfortable. Mark that spot and try to go higher next time. Do this at least 10 times, 3 times a day. Repeat this exercise from the side. Turn so your injured side faces the wall.



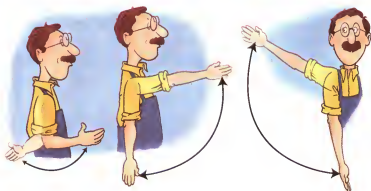
Cane Exercises

Sit in a chair or lie down. Hold a cane, stick, or broom in both hands as shown. Keep your elbows straight. Raise the cane over your head, or as high as you can. Do at least 25 times, 3 times a day.



Range of Motion

Move your injured arm in all directions. Move it straight out in front, high up overhead, out to the side, across your body, and around your back. Reach as far as you can in all directions. Do each motion 25 times, 3 times a day. You can do this exercise sitting, standing, or lying down.



Isometric Exercises

Exercise 1: Bend the elbow of the injured arm and clench the fist. Press your fist against the open palm of your good hand. Hold this pressure for 6 to 7 seconds. Then reverse the pressure by pressing your open palm against the back of your fisted hand. Ask your doctor or therapist how many times and how often to do this exercise.

Exercise 2: Hold the injured arm in front of you with the elbow bent and fist clenched. Place your good hand over the elbow of the injured arm. With your hand pressing against your elbow, push the elbow out to the side for 6 to 7 seconds. Ask your doctor or therapist how many times and how often to do this exercise.



Exercise 1



Exercise 2

General Exercises

Any kind of exercise that uses your shoulder will help you regain shoulder movement. Swimming is one of the best forms of exercise for this purpose. Golf and tennis may also be good, if you already play. Ask your doctor or therapist which activities are best for your shoulder problem.



Your Physical Therapist's Role

Physical therapy may be prescribed by your doctor. Physical therapists are specially trained to treat symptoms of diseases and injuries. Therapy may help relieve pain, regain movement, and strengthen your shoulder muscles. It is most helpful in freeing up or preventing a "frozen" shoulder. Your physical therapist will evaluate your shoulder. He or she will then decide on the best treatments. One or more of the following treatments may be used.

Shoulder Treatments

Exercise

A physical therapist may supervise your exercise program to be sure that you are doing it right. You will be shown how to avoid motions that may slow your recovery. You may be shown how to do self-mobilization exercises. These help to break adhesions in a "frozen" shoulder.

Your therapist may use special equipment to check your progress. A **goniometer** measures your shoulder's range of motion. **Exercise equipment** (such as a pulley) may also be used to see if your strength is improving. It also strengthens your muscles.

Heat and Ice

Ice or heat packs may be applied to help relax shoulder muscle spasms. An ultrasound device can be used to deep heat a certain area. This device may also be used to break up adhesions and calcium deposits. Ice may be used to numb pain and decrease spasm and inflammation.

Electrical Stimulation

Your physical therapist may apply a mild electrical current to your injured shoulder. This can help relieve pain and decrease inflammation.

Massage

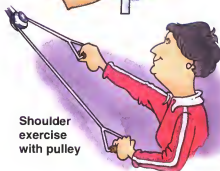
Tight muscles may be rubbed and kneaded to relax them. Rubbing also increases blood flow to the shoulder.



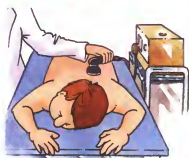
Wall walk exercise



Goniometer



Shoulder exercise with pulley



Ultrasound therapy

Returning to Routine

As your shoulder starts to feel good again, ease back into everyday activities. Learn how to move and use your shoulder wisely to prevent another injury. You can also help keep your shoulder flexible and strong with exercise.

Protect Your Shoulder

Once your shoulder is healthy and moving freely, you'll want to keep it that way. Here are some helpful pointers:

- Stand straight and relaxed. Don't slump.
- Avoid raising your arms overhead for long periods.
- Don't lift objects that are too heavy for you.
- Lift and carry loads close to your body. Keep the elbow of your injured arm bent, not straight.
- If your left shoulder is injured, don't rest your arm on the car door when you drive.
- Don't lean on your injured arm.
- Sleep on your back or on the side of the healthy shoulder. Don't put pressure on the injured shoulder.
- Keep your arm moving: Every 30 minutes, gently move your shoulder.



Maintain Shoulder Motion and Strength

Keep doing the exercises and activities advised by your doctor or physical therapist. If you're recovering from an injury, this may be painful. But it is needed to regain your normal range of motion.

Special Note

If you suffer from a wear-and-tear inflammatory problem, remember that pain is a warning sign. Tell your health care provider about activities or motions that are painful.



Keep Your Shoulders in Shape

Remember: You have a key role in keeping your shoulders healthy. Seeing your doctor for treatment is important. But there are things you can do to keep your-shoulder in shape.

- For mild shoulder pain, apply ice or heat. Take aspirin or ibuprofen as directed. If pain persists, call your doctor.
- Never put any strain on your shoulders. Always protect them and use common sense.
- Keep your shoulders strong by doing the exercises suggested by your doctor or physical therapist.
- Play it safe—warm up before exercising. Protect your shoulders by wearing pads when playing football or other rough sports.



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